

REMARKS

Summary of Amendments

1. In the specification, paragraph [0083] has been amended to add a reference numeral missing from the first mention of "bellows" under the subhead "Embodiment" in the description section.
2. Claims 1-5 were originally presented in this application. Claims 2-5 have been canceled and new claim 6 added in this paper. Claim 1 has been amended, as described in more detail below, to more particularly point out and distinctly claim the subject matter of the instant invention. Claims 1 and 6 are thus the claims now pending before the Examiner.

Claim Rejections – 35 U.S.C. § 102

3. Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Tamura et al.* (U.S. Pat. No. 5,792,304). The Examiner states:

Tamura et al. disclose a semiconductor processing device comprising a wafer holder to hold and transport substrates (Fig. 13, [ref. no.] 2, and Col. 17, lines 29-37), a vertically movable pedestal ([ref. no.] 63 [in Fig. 9], and Col. 17, line 53 to Col. 18, line 4), support pieces mounted to pedestal (Fig. 9 and Fig. 13), a hermetic bellows seal between pedestal and chamber (50), and lift pins to load/unload substrates (19).

4. Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Aruga et al.* (U.S. Pat. No. 5,688,331). The Examiner states:

Aruga et al. disclose a semiconductor processing device comprising a wafer holder to hold and transport substrates (Fig 6, [ref. no.] 39), a vertically movable pedestal (95 and 61), support pieces mounted to pedestal (Fig. 6), a hermetic bellows seal between pedestal and chamber (37), and lift pins to load/unload substrates (Col. 5 lines 15-20, and Col. 11 lines 62-68).

5. Claims 1-5 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Brown et al.* (U.S. Pat. App. Pub. No. 2003/0029568). The Examiner states:

Brown et al. disclose a semiconductor processing device comprising a wafer holder to hold and transport substrates (Fig. 2 and Paragraphs 39-42), a vertically movable pedestal, support pieces mounted to

pedestal (Fig. 2), a hermetic bellows seal between pedestal and chamber (252) and lift pins to load/unload substrates (290).

6. Applicants respectfully traverse these rejections to the extent that they are pertinent to independent claim 1 as amended. The amendments to claim 1 are supported, for example, by original claims 2-5, by original Figs. 1 and 2, and by paragraphs [0018] through [0024] of the original specification. (No new matter has been added, and no new search should be required.)
7. Applicants respectfully submit that independent claim 1 now distinguishes patentably over *Tamura et al.* Claim 1, as amended, of the present application recites a structure in which each of a plurality of lift pins are anchored to the processing chamber. MPEP § 2131 states that a reference must teach every element of a claim in order to properly anticipate that claim. Applicants respectfully submit that *Tamura et al.* do not disclose a structure in which lift pins are anchored to a processing chamber. On the contrary, *Tamura et al.* show lift pins disposed in the "pedestal" ("shaft," as actually termed in the reference) 63. Accordingly, *Tamura et al.* cannot anticipate amended claim 1.
8. Applicants respectfully submit that independent claim 1 now distinguishes patentably over *Aruga et al.* as well. Claim 1, as amended, of the present application recites a structure in which each of a plurality of lift pins are anchored to the processing chamber. As just noted in section 7 above, MPEP § 2131 states that a reference must teach every element of a claim in order to properly anticipate that claim. Applicants respectfully submit that *Aruga et al.* do not disclose a structure in which lift pins are anchored to a processing chamber. On the contrary, *Aruga et al.* disclose lift pins 252 (Fig. 23) disposed in the **susceptor**. Driving the susceptor downward brings the pins 252 into contact with a support ring 254, which causes the pins to thrust outward through the wafer-carrying face (column 11, lines 54-67). Accordingly, *Tamura et al.* cannot anticipate amended claim 1.
9. Applicants respectfully further submit that independent claim 1 now distinguishes patentably over *Brown et al.* Claim 1, as amended, of the present application recites a structure in which each of a plurality of lift pins are anchored to the processing chamber. Again, MPEP § 2131 states that a reference must teach every element of a claim in order to properly anticipate that claim. Applicants respectfully submit that *Brown et al.* do not disclose a structure in which lift pins are anchored to a processing chamber. On the contrary, *Brown et al.* disclose a structure similar to that disclosed in *Aruga et al.*, in which lift pins 290 (Fig. 2) are disposed in the **support member** 204. Driving the support member downward brings the pins 290 into contact with a support ring (ref. no. 288 in Fig. 2), which causes the pins to thrust outward through the wafer carrying face (Fig. 6). Accordingly, *Brown et al.* also cannot anticipate amended claim 1.

10. Moreover, Applicants respectfully submit that the prior art references of record (*Tamura et al.*, *Aruga et al.*, and *Brown et al.*) are similar in that each discloses a structural configuration in which vertical movement of the wafer holder and the pins is required to move the lift pins. The present invention is distinct and advantageous in that vertical movement of the **pedestal** is all that is required to extend and retract the lift pins out from and into the wafer carrying face of the wafer holder (since the lift pins are anchored to the chamber). Therefore, since it is not necessary to move the lift pins, a savings in electrical power consumption is realized.
11. Applicants present new claim 6 for consideration in this paper. New claim 6 is supported, for example, by original Figs. 1 and 2, such that no new matter has been entered and no new search should be required. Applicants respectfully submit that new claim 6 should be allowable since it depends from independent claim 1. Applicants also submit that new claim 6 is further patentably distinct in that it recites bellows that are deployed outside the processing chamber. Each of the prior art references of record (*Tamura et al.*, *Aruga et al.*, and *Brown et al.*) discloses bellows deployed **inside** the processing chamber. The present invention as recited in claim 2 advantageously conserves processing-chamber space.

Accordingly, Applicants courteously urge that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

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